

WHAT IS CLAIMED IS:

1. A method for issuing a certificate by using a computer, comprising the steps of:
 - inputting individual information of a certificate issuance requester;
 - writing the individual information on electronic data of a board by using characters;
 - painting out a background portion of the individual information written with the characters, by using a plurality of colors according to a first predetermined rule;
 - further re-painting the background portion of the individual information written with the characters, according to a second predetermined rule by using information that differs from certificate to certificate;
 - storing a certificate identification number and the information that differs from certificate to certificate;
 - entering the certificate identification number into the electronic data of the board; and
 - printing the electronic data as a certificate.
2. The certificate issuing method according to claim 1, wherein the first predetermined rule specifies dividing the background portion into rectangles having equal areas, and specifies association of positions of painted out portions in a rectangle with colors of portions that are not painted out.
3. The certificate issuing method according to claim 2, wherein the information that differs from certificate to certificate is converted to a pattern encoded and represented by dots, and

the second predetermined rule specifies extracting a position and a color of each of dots at which the background portion painted according to the first rule lies upon the pattern, creating a Voronoi diagram by using the positions of the dots, and specifies each of regions of the Voronoi diagram with the color.

4. The certificate issuing method according to claim 1, further comprising the steps of:

entering information at time of board creation and a digital signature for guaranteeing the information at the time of board creation onto the board; and

entering a digital signature for guaranteeing the individual information onto the board.

5. A certificate, wherein

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a certificate identification number is printed on a board;

a background pattern unique to the certificate is printed on a part of the board by using a plurality of colors; and

individual information is overwritten on the background pattern by using characters.

6. A method for verifying a certificate issued comprising the steps of:

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(a) converting the certificate to electronic data;

(b) reading out a certificate identification number on the certificate;

(c) reading out characters of individual information entered onto the certificate;

(d) painting out a background portion of the individual information with a plurality of colors according to a first predetermined rule;

(e) obtaining information that differs from certificate to certificate from the certificate identification number read out, and further re-painting the background portion of the individual information according to a second predetermined rule;

(f) comparing a background portion of the individual information on the certificate with the background portion created at the steps (d) and (e); and

(g) judging the certificate to be invalid when the background portion of the individual information on the certificate does not coincide with the background portion created at the steps (d) and (e).

7. A certificate issuing system comprising:

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a requester terminal for inputting individual information of a certificate issuance requester;

a certificate issuing device for writing the individual information into electronic data of a board by using characters, painting out a background portion of the individual information written with the characters, by using a plurality of colors according to a first predetermined rule, further re-painting the background portion of the individual information written with the characters, according to a second predetermined rule by using information that differs from certificate to certificate, storing a certificate identification number and the information that differs from certificate to certificate, and entering the certificate identification number into the electronic data of the board;

wherein said requester terminal prints electronic data received from said certificate issuing device, as the certificate.

8. A device for verifying a certificate issued by the system of claim 7, comprising:

- an input device for converting the certificate to electronic data;
- an identification number readout unit for reading out a certificate identification number on the certificate;
- a character readout unit for reading out characters of individual information on the certificate;
- a first background painting out unit for painting out a background portion of the individual information with a plurality of colors according to a first predetermined rule;
- a second background painting out unit for obtaining information that differs from certificate to certificate from the certificate identification number, and further re-painting the background portion of the individual information written with characters according to a second predetermined rule; and
- an output unit for printing a region including the background portion created by the second background painting out unit.

9. The device for verifying a certificate according to claim 8, further comprising:

- a comparison unit for comparing a background portion of the individual information on the certificate with a region including the background portion created by the second background painting out unit; and
- a judgment unit for judging the certificate to be invalid when the background portion of the individual information on the certificate does not coincide with the region including the background portion created by the second background painting out unit.